

Biospheric Sciences Branch Highlights for July-August 2000

**** Darrel Williams receives NASA Exceptional Service Medal**

Darrel Williams (Code 923) received the NASA Exceptional Service Medal at award ceremonies on Monday, August 14 at 2 p.m. in the Building 8 auditorium at Goddard. The NASA Exceptional Service Medal "is awarded for significant achievement or service characterized by unusual initiative or creative ability that clearly demonstrates substantial improvement in engineering, aeronautics, space flight or space-related endeavors, or administration and support of these endeavors which contribute to the programs of NASA."

Specifically this award is to honor Darrel for "advancing the science of satellite remote sensing and ensuring the scientific integrity of the Landsat 7 mission by serving as the Landsat Project Scientist". With his many contributions to the remote sensing of the Earth, in general, and for his scientific leadership of the Landsat program and the successful launch of Landsat 7, in particular, Dr. William's hard work and dedication to the mission will continue to pay dividends far into the future.

**** LBA's new field research facility written up in SPACE NEWS of July 17, 2000**

"Amazon Facility Ready for Rain Forest Study"

"A new field research facility in the Amazon rain forest is complete and ready for the 150 scientists and students who will work there starting in July. The facility is part of the Large Scale Biosphere-Atmosphere Experiment in Amazonia (LBA).

NASA and the Brazilian government worked together to complete the facility near the Amazon River city of Santarem in Brazil. NASA spent \$2.9 million on the facility and has committed several million more dollars for personnel to work on the project, said NASA spokesman Dave Stietz.

The Amazon experiment will use data from NASA's Landsat 7, Terra, and Tropical Rainfall Measuring Mission satellites for projects such as creating a high-resolution map detailing flooding across the Amazon basin.

The Large Scale Biosphere-Atmosphere Experiment is designed to help scientists better understand how the Amazon ecosystem functions and interacts with other Earth systems. The experiment also is designed to monitor the impact of land use changes on the ecosystem."--SPACE NEWS, July 17, 2000

For additional information concerning the new field research facility, please check out the following web site: <http://ens.lycos.com/ens/jun2000/2000L-06-26-03.html>

**** Landsat Project Science Office Prepares Poster of August 14 Fires in Montana:**

Jan Ruff, Chief, Office of Public Affairs, called late Monday afternoon, August 14, asking if Landsat had a thermal band and whether it might have recently flown over central Montana, near Helena. Apparently Senator Burns from Montana was asking for some quick turnaround imagery of the fires raging there. As good luck would have it, Landsat 7 flew over a path sandwiched right between Helena and Missoula that very day -- Monday, Aug. 14th. Working closely with USGS/EDC folks, we were able to expedite the creation of browse images to determine if there was cloud cover, etc. Again, good luck prevailed and the images were of excellent quality. EDC processed the imagery into a Level 1 product during Tuesday night, and we were able to pull down the data via ftp by early afternoon Wednesday. Rich Irish and Laura Rocchio of the LPSO generated a poster size image that very afternoon, including a "zoom in" on the major fire burning in the scene, and delivered the product to Jan late Wednesday afternoon. Jan was delighted with the service and forwarded the images to the appropriate group at NASA Headquarters which then delivered them to the Senator's office.

**** Landsat Program Science Office provides image of North Carolina coast for the cover of NCCF's Sixth Annual State of the Coast Report**

The North Carolina Coastal Federation (NCCF), a nonprofit 501(c)3 organization which does not engage in any partisan political activity, plans to use the Landsat natural color rendition of the North Carolina coast following Hurricane Floyd as the cover of their annual report. This will be NCCF's Sixth Annual State of the Coast Report.

We were contacted by Jim Stephenson of the NCCF about the use of the imagery and we encouraged it, only asking that they acknowledge the LPSO, NASA and USGS for providing the imagery.

Descriptions from inside cover of the report:

North Carolina Coastal Federation_Citizens Working Together for a Healthy Coastal Environment _The North Carolina Coastal Federation is the state's largest non-profit organization working to restore and protect the coast. Formed in 1982, the NCCF has grown to serve more than 5,000 members and 200 member groups. The NCCF focuses on three main areas of work

including habitat restoration and protection, environmental education, and the encouragement of sound environmental programs and their enforcement.

NCCF's Sixth Annual State of the Coast Report_The purpose of the State of the Coast Report is to present a straightforward look at the issues shaping our coastal environment. There are no hidden agendas - just a sincere effort to present the best information from those most qualified in the field. To take it a step further, we offer possible solutions to some of the most challenging problems. The opinions expressed in the State of the Coast Report represent views of the North Carolina Coastal Federation.

The topics in the report will closely resemble the agenda for their upcoming summit which can also be viewed on their web site at:

<http://www.nccoast.org/SOC.html>

**** GOFC Workshop, Aug. 28 - Sep. 1, 2000, Novosibirsk, Russia**

Don Deering, Jon Ranson and Guoqing Sun (all of Code 923) participated in the Global Observations of Forest Cover (GOFC) - Boreal Forests Workshop in Novosibirsk, Russia, the new official Capitol of Siberia. GOFC is a panel of the Global Terrestrial Observing System, originally developed as a pilot project by the Committee on Earth Observation Satellites, as part of their Integrated Global Observing Strategy. GOFC's overall objective is to improve the quality and availability of satellite observations at regional and global scales and to produce useful, timely and validated information products from these data together with in-situ observations for a wide variety of users.

Dr. Deering presented an overview of forest cover and land surface condition monitoring capabilities from satellite, which included some discussion of his currently active research in Siberian boreal forests near Krasnoyarsk on forest fire succession. He also gave a presentation on the major international LBA scientific project, currently underway in the Amazon, as a potential organizational model for a future large international Earth sciences research program in Russia.

Dr. Ranson presented a poster with Russian scientist, Dr. V.I. Kharuk showing some of the vast areas of Siberian forests damaged by fires, insects, pollution and mineral exploitation.

At the suggestion of NASA HQ program management, at the workshop Dr. Deering initiated a "test bed" networking task that is intended to link several Novosibirsk and Krasnoyarsk institutes and their respective satellite receiving stations for the purposes of improved communications and data sharing for research and international science planning activities. The eventual goal will be to enable similar networking for several Russian science institutes to facilitate scientific programs, including the GOFC. This effort will also directly benefit the on-going NASA-sponsored research projects of Ranson and Deering.

Results from the workshop will be formally published on the GOFC Web site following final drafting and review, and regional workshops will be planned by a newly established steering committee for GOFC - Boreal Forests, with the first one scheduled for St. Petersburg in the spring of 2001.

**** SAFARI Update**

Due to miscommunications between government ministries and agencies within Zambia, NASA's MOU with the Zambian Meteorology Department has been temporarily revoked. The Department of Meteorology has asked that all Safari data collection cease as of approximately Sept. 7. This did not apply to the existing AERONET agreement. Investigators are allowed to retrieve their equipment.

Brent Holben cancelled his follow-up trip to Zambia, to keep AERONET at a low profile. Jeff Privette and his team have left the country. Darold Ward of the USFS is in the process of collecting the AERONET equipment. There is absolutely no danger to anyone. Relations are very good with associated in-country personnel and collaborators. The Department of Meteorology is preparing a letter detailing the events leading to the collapse of the agreement and are taking full responsibility for the situation.

Official details can be obtained from Al Condes or Susan West, NASA Headquarters, Earth Science Division, Office of External Relations.

*** NASA Global Carbon Cycle Initiative--Current Activities**

The management of the Carbon Cycle Initiative effort has been placed in Code 970.2 under the leadership of Dr. Charles McClain. In addition to day to day interactions the Goddard Carbon Cycle Team has weekly scheduled meetings and meets bi-weekly with Code YS managers at HQ.

Goddard Carbon Cycle Team together with HQ Code YS have submitted to the ESA AA, a Charter stating the duties/responsibilities of GSFC, HQ, other Centers and the Science Working Group during the definition phase of the NASA Global Carbon Cycle Initiative.

The Goddard Team together with HQ Code YS and the other NASA Centers have nominated a group of outside scientists (Science Working Group) to help draft the NASA Global Carbon Cycle Initiative. Recruiting is currently underway.

The first NASA Global Carbon Cycle Initiative involving the Goddard Team, HQ, the other Centers and the Science Working Group is tentatively scheduled for early January 2001 in the GSFC area.